

## Chapter 4: Management Direction

Photo Copyright by Jan Eldridge



### Windom Wetland Management District

This chapter of the Comprehensive Conservation Plan steps down overall guidance to the District through station specific objectives and strategies. The objectives and strategies identify activities that achieve the Plan's goals, the District's purpose and the National Wildlife Refuge System mission (Chapters 1 and 2).

The Windom Wetland Management District was established in 1990 and encompasses 12 southwestern Minnesota counties (Figure ). It includes 59 WPAs covering 11,444 acres of fee title lands, 34 wetland/flowage easements covering 1,463 acres, eight Habitat Easements totaling 384 acres and nine FmHA Conservation Easements on land formerly on the inventory of the Farmers Home Administration.

*Major Habitat Types of Waterfowl Production Areas in the Windom Wetland Management District (in acres)*

Native prairie	422
Other grasslands/farmland	7,564
Forested/brushland	543
Wetland/riverine	4,140
Total	12,669

## Objectives and Strategies

### Wildlife and Habitat

#### Goal 1: Wildlife

Strive to preserve and maintain diversity and increase the abundance of waterfowl and other key wildlife species in the Northern Tallgrass Prairie Ecosystem. Seek sustainable solutions to the impact of Canada geese on adjacent private croplands. Preserve, restore, and enhance resident wildlife populations where compatible with waterfowl and the preservation of other trust species.

**Objective 1.1:** Update MAAPE Process. The District will request that Habitat and Population Evaluation Team (HAPET) to review the Multi-agency Approach to Planning and Evaluation (MAAPE) process every 5 years to incorporate monitoring results and reevaluate strategies for increasing waterfowl production within the Districts.

**Figure 10: Windom Wetland Management District**



*Strategy 1.1.1:* MAAPE Review. Schedule a MAAPE review for January 2004. RONS Project Nos. 00001 and 00006

*Strategy 1.1.2:* Waterfowl Partnerships. Recruit two non-traditional organizations to participate in MAAPE process.

**Objective 1.2:** Alternative Waterfowl Monitoring. The District will develop alternative monitoring techniques by the year 2005 for waterfowl abundance and productivity estimates in areas of Districts that are not well-covered by the 4-square-mile monitoring program. These estimates should be developed in cooperation with the HAPET office since the current 4-square-mile data is used in the mallard model and forms the basis of the MAAPE process.

*Strategy 1.2.1:* Waterfowl Production Estimates. Explore the development of an annual nest drag program and brood count routes with HAPET by the year 2005, to complement the data collected during the 4-square-mile breeding pair survey.

*Strategy 1.2.2:* Wildlife Biologist. Additional wildlife biologists, biological technicians, and support funds and equipment will be requested so that monitoring programs can be developed and implemented. RONS Project Nos. 99006, 00010 and 00011

**Objective 1.3:**

Recruitment Rate. The District will strive to increase potential recruitment rate of mallards in an average year from the current level of 0.35 to 0.51 by the year 2015 (based on the Mallard model and the MAAPE process).

*Strategy 1.3.1:* Upland Nesting Habitat. This increase will occur by converting 118,000 acres of cropland to grassland through a variety of programs and partnerships. Other techniques will also be used such as: grazing programs, establishment of waterway buffer strips, wetland restorations and wetland water level management. RONS Project Nos. 00001, 00002

*Strategy 1.3.2:* Nest Success. The District will strive for 50 percent nest success (Mayfield) on nest structures within the District.

*Strategy 1.3.3:* Nest Structures. The District will assemble and place 200 hen house nesting structures per year starting in 2008 until a total of 2,300 is reached. The District, in partnership with other organizations, will continue to maintain and monitor all existing structures and relocate structures that have not been used for five successive years. RONS Project No. 00042

*Strategy 1.3.4:* Recruitment Study. Obtain funding to conduct a three year study to determine waterfowl production on WPAs in southwestern Minnesota. RONS Project No. 00012

**Objective 1.4:**

Violations. Each year, the District will inspect all WPA, FmHA Conservation Easement and Habitat Easement for compliance to insure protection of migratory waterfowl and other habitats. Any illegal activity will be responded to immediately and restored as soon as possible.

*Strategy 1.4.1:* Easement Enforcement. District staff will inspect WPAs during routine field activity throughout the year. Surveillance flights conducted in the fall will be used to inspect easements and WPAs not inspected during routine field activities. RONS Project Nos. 00013, 00043

**Objective 1.5:**

Working With Partners. The District will cooperate with all USDA, Minnesota DNR and any other local agency programs as well as participate as a partner with local conservation groups to increase waterfowl habitat and production.

*Strategy 1.5.1:* Partner Coordination. Organize a meeting by 2006 with potential partner organizations to identify ways to work cooperatively to improve

Photo Copyright by Jan Eldridge



wildlife habitat. RONS Project Nos. 00004, 00006, 00008 and 00009.

**Objective 1.6:** Enforcement. The Districts will prohibit the introduction of wildlife species on WPAs that are not native to the Northern Tallgrass Prairie Ecosystem.

*Strategy 1.6.1:* Outreach. Inform public about prohibited wildlife species introductions through news releases and other media outlets. RONS Project No. 00031

**Objective 1.7:** By 2003 develop a Memorandum of Understanding with the Minnesota DNR which clearly articulates the responsibilities of Wetland Districts for the handling of landowner complaints originating from geese on WPA wetlands.

*Strategy 1.7.1:* Corrective Measures. Where a problem is identified as a responsibility of the Service, we will work with each landowner on a case by case basis and choose a long term solution that will best meet the needs of the affected landowner. RONS Project No. 00028

## Goal 2: Habitat

Restore native prairie plant communities of the Northern Tallgrass Prairie Ecosystem using local ecotypes of seed and maintain the vigor of these stands through natural processes. Restore functioning wetland complexes and maintain the cyclic productivity of wetlands. Continue efforts for long-term solutions to the problem of invasive species with increased emphasis on biological control to minimize damage to aquatic and terrestrial communities. Continue efforts to better define the role of each District in assisting private landowners with wetland, upland and riparian restorations.

**Objective 2.1:** Prairie Restoration. Restore an average of 500 fee title acres each year to native prairie grass and forb species. Begin the restoration process on all new acquisitions within three years of purchase. Seed a diverse mix of predominantly native grasses and forbes using the ecotype recommendations of the Headwaters/Tallgrass Prairie Ecosystem Team. Replicate, to the extent possible, the structure, species composition, and processes of native ecological communities in the Tallgrass Prairie to improve migratory bird habitat and improve existing soil and water quality within respective watersheds. Judiciously use non-native plantings when desirable to meet waterfowl and migratory bird population objectives.

*Strategy 2.1.1:* Local Origin Seed. By year 2010, develop a local harvest sites for native grass and forb harvest sites on WPAs and easements, which have a combined annual capacity of producing 6,000 pounds of pure live seed. This seed will be used primarily on WPAs to re-establish quality,

diverse upland habitat. When considered appropriate, this seed can also be used on Habitat Easements and Private Lands. RONS Project Nos. 99008, 99009, 00015, 00016

*Strategy 2.1.2:* Native Prairie Specialist. Hire a Biologist that specializes in native prairie ecology by 2004. Responsible to identify and coordinate the protection, maintenance and restoration of priority sites. RONS Project No. 99008

*Strategy 2.1.3:* Grassland Management Plan. Develop a grassland management plan by 2005 which identifies priority sites for local origin grass/forb establishment (former cropland), conversion (non-native habitat), and seed harvest. The plan will also outline habitat restoration, preservation and maintenance techniques and strategies. RONS Project No. 99008

*Strategy 2.1.4:* Techniques. Test and evaluate local origin native plant establishment techniques to improve seed application efficiency, plant establishment, plant diversity and reduce invasive, noxious weed problems. RONS Project No. 99008

**Objective 2.2:** Grassland Management. Manage all fee and up to 25 percent of the easement grasslands which need management to maintain or improve plant diversity and vigor.

*Strategy 2.2.1:* Existing Grassland. Seed or interseed 200 acres of existing grassland per year to local origin native grass and forbs. RONS Project Nos. 00015, 00016, 00017

*Strategy 2.2.2:* Woody Cover Management. Remove woody cover that is invading grassland habitat. Treat 100 acres annually. RONS Project No. 00018

**Objective 2.3:** Prescribed Burn. Annually plan and conduct prescribed burns to imitate the natural fire process on 5,000 acres to maintain and restore native prairie plant species, improve waterfowl and wildlife utilization, and prepare selected sites for native seed harvest.

*Strategy 2.3.1:* Expand Prescribed Fire Season. Imitate the effects of historic fires on native grass/forb plants by expanding the prescribed fire season to include summer and fall burns. RONS Project No. 00021

*Strategy 2.3.2:* Fire Equipment. By year 2003, increase firefighting equipment to supply two prescribed fire crews. RONS Project Nos. 99011, 00020



Photo Copyright by Jan Eldridge

*Strategy 2.3.3:* Fire Staff. By year 2003, increase fire staff to establish two fire crews. RONS Project Nos. 99011, 00019

**Objective 2.4:** Wildfire Management. Protect human life, property, natural/cultural resources, real property both within and adjacent to Fish and Wildlife Service administered lands from those fires which start on FWS lands by safely suppressing all wildland fires using strategies and tactics appropriate to safety considerations, values to be protected, management objectives and in accordance with Service Policy.

*Strategy 2.4.1:* Wildfire Coordination. Establish a stronger working relationship with local fire authorities. Establish detection, initial attack and fire management cooperative agreements with local fire departments. RONS Project No. 00021

**Objective 2.5:** Wetland Restoration. Restore a combined average of 150 wetlands per year (1,000 acres) on and off District lands to provide migratory birds migration, breeding and nesting habitat.

*Strategy 2.5.1:* Restoration Staff/Funding. Add Wetland Restoration Biologist, staff and funding by year 2002 to promote and complete restorations both on private and public lands. RONS Project Nos. 99010, 00002, 00004, 00005, 00007, 00022, 00023

*Strategy 2.5.2:* WPA Wetland Restoration. Restore all drained WPA wetlands, except co-owned, within 2 years of acquisition. RONS Project Nos. 00022, 00023

*Strategy 2.5.3:* Large Private Wetlands. Allow for restoration of one to two large private wetlands (average of 75-plus acres each) annually by seeking funds and hiring staff to conduct the extensive planning, landowner contacts, coordination with partners, design, permitting and monitoring of construction necessary. RONS Project Nos. 00022, 00023

**Objective 2.6:** Water Level Management. Draw the water down on 20 percent of the wetlands that have built-in water control structures to increase vegetation and nutrient recycling for the benefit of waterfowl.

*Strategy 2.6.1:* Water Management Plan. By year 2006, develop a water level management plan for the District. RONS Project No. 00025

**Objective 2.7:** Monitoring. Inventory hydrological systems in the District as identified in the monitoring plan, including chemical water analysis, water level, water flow and the interaction of federal lands and private lands within the watershed.

- Strategy 2.7.1:* Annual Assessment. Inspect all water control structures and determine management needs on an annual basis to improve marsh productivity as brood rearing and breeding habitat for migratory birds. RONS Project Nos. 98007, 00003, 00025
- Strategy 2.7.2:* Effects of Wetlands. Monitor the impact of wetlands on hydrology within various watersheds as identified in the monitoring plan. RONS Project Nos. 98007 and 00025
- Strategy 2.7.3:* Contaminant Monitoring. Conduct water analysis to monitor changes in contaminants and other key chemicals over time as identified in the monitoring plan. RONS Project Nos. 98007 and 00025
- Objective 2.8:** Cooperation. Work in partnership with Watershed Boards to identify opportunities for mutually beneficial wetland restoration projects.
- Strategy 2.8.1:* Watershed Coordination. By the year 2006, meet with each Watershed Board in the District to determine their interest in cooperatively developing a list of mutually beneficial wetland restoration projects. RONS Project No. 98007
- Objective 2.9:** Research. Encourage and cooperate in research on hydrological systems within the District.
- Strategy 2.9.1:* Wetland Plant Diversity. By year 2005, contact Southwest State University (Marshall, Minnesota) or South Dakota State University (Brookings, South Dakota) to study the most effective methods of re-establishing a diverse wetland plant community in wetlands previously converted to cropland. RONS Project No. 00024
- Objective 2.10:** Management Data. By 2008, collect basic hydrological data to assist with the management of wetlands on WPAs and to assist in the strategic planning of future land acquisitions. Data collection will follow the guidance developed in the monitoring plan.
- Strategy 2.10.1:* Obtain GIS layers which enable the calculation of watersheds for existing or drained wetlands. Use as tool for managing or restoring wetlands. RONS Project No. 98007
- Objective 2.11:** Hydrologist. By 2006, hire a hydrologist for each District to conduct hydrological monitoring program, analyze the data and present the information to management in a usable form.

*Strategy 2.11.1:* Hydrologist. Hire a hydrologist and purchase the necessary equipment and supplies to conduct the District Water Management Program. RONS Project No. 00025

*Strategy 2.11.2:* Coordination. Have annual meetings for hydrologists throughout the Districts to share information, techniques, and results.

*Strategy 2.11.3:* Data Summary. The hydrologist will collect and summarize hydrological data in an annual report and identify how this data can be incorporated in management decisions for the benefit of waterfowl and other target populations. RONS Project No. 00025

*Strategy 2.11.4:* Contaminants. Hydrologist will monitor contaminants in the wetlands within the District on a regular basis as outlined in the monitoring plan.

**Objective 2.12:** Cooperation. By 2008, the Districts will cooperate with state wildlife offices and local organizations to provide winter food sources on documented wintering areas to benefit resident species of wildlife.

*Strategy 2.12.1:* Coordination. Cooperate with DNR Wildlife Managers and local organizations in providing Special Use Permits for small (1-4 acre) food plots on WPAs where a documented need exists. Practice will be implemented selectively and not promoted for all WPAs across the District. A willing and reliable local organization must commit to accepting all responsibilities concerning the establishment and management of the food plot.

*Strategy 2.12.2:* Woody Cover. Tree plantings will be limited to indigenous brush species and to sites where they historically occurred.

**Objective 2.13:** Plant Control. Reduce exotic plants by 2008, including noxious weeds on state and county lists, through an aggressive program including burning, mowing, chemical treatment, hand cropping, and interseeding. Primary targets include purple loosestrife, Canada thistle, and leafy spurge.

*Strategy 2.13.1:* Biological Control. Continue to promote and emphasize biological control through use of insects and other biological agents. Implement appropriate strategies on all identified WPA sites by 2006. RONS Project Nos. 00018 and 00029

*Strategy 2.13.2:* Staff. Hire an outreach specialist to work with students, landowners and the general public to



implement control and eradication measures throughout the District. RONS Project No. 00032

*Strategy 2.13.3:* Habitat Conversion. Identify and convert severe problem weed areas, located in non-native grassland. Develop long-term solution by eliminating noxious weeds and converting area to local origin native prairie grass/forb plants through farming agreements or inter-seeding techniques. RONS Project No. 00029

*Strategy 2.13.4:* Weed Control. Improve weed control through mechanical and chemical methods on WPAs as necessary. RONS Project No. 00029

**Objective 2.14:** Minnow and Carp Control. Reduce or eliminate populations of exotic/invasive fish species on shallow prairie wetland communities within the District by 2015. Primary targets include fathead minnows, common carp and buffalo.

*Strategy 2.14.1:* Conduct a survey to determine the extent of invasive fish species and implement eradication measures as necessary on WPAs within the District. RONS Project No. 00030

**Objective 2.15:** Grasshopper Control. Work with Minnesota Department of Agriculture to devise an appropriate emergency grasshopper control plan by 2008 so that future infestations are handled effectively and in a way that minimizes or eliminates insecticide use on WPAs.

*Strategy 2.15.1:* Coordination. Contact Minnesota Department of Agriculture in 2006 to begin planning process.

**Objective 2.16:** Biological Control. Increase emphasis on biological control for invasive species whenever feasible.

*Strategy 2.16.1:* Plants. See Strategy 2.1.3.1.

### Goal 3: Acquisition

Within current acquisition acreage goals, identify the highest priority acres for acquisition taking into account block size and waterfowl productivity data. These priority areas should drive acquisition efforts whenever possible. Service land acquisition should have no negative impact on net revenues to local government. Understand and communicate the economic effects of federal land ownership on local communities.

**Objective 3.1:** Evaluating Acquisition Priority. Review and update the current acquisition guidelines by the year 2004. Acquisition strategies for future acquisitions within the Districts will be based on site potential. Consideration should be given to size, quality, key species affected, habitat fragmentation, landscape scale, wetland complexes, potential productivity of restored wetlands, etc.

*Strategy 3.1.1:* Guidelines. Acquisition guidelines that highlight biological and management factors to be considered when purchasing new lands and reviewed when delineating acquisitions.

**Objective 3.2:** Goal Acres. Conduct a biological assessment by the year 2006 to determine if current goal acres will be sufficient to reach waterfowl recruitment objectives for the District.

*Strategy 3.2.1:* Acquisition Planning. Complete a District-wide assessment by 2004 to identify high priority fee and easement acquisitions, which include round-outs and new starts. RONS Project No. 00003

*Strategy 3.2.2:* Ascertainment Biologist. Hire an Ascertainment Biologist to complete 2B1, inspect potential acquisitions, contact landowners of high priority tracts, complete elevation surveys and provide assistance in the certification process. RONS Project No. 00014

**Objective 3.3:** Coordination. The District will coordinate with the District Acquisition Office to insure rapid response to willing seller offers that meet the acquisition priorities. An offer will be made to the seller within 6 months of the decision to acquire the tract.

*Strategy 3.3.1:* Appraisal Request. By 2006 the District staff will request an appraisal from the Acquisition Office within 1 month of the initial land owner contact if interested in acquiring the tract. RONS Project Nos. 00014, 00005

*Strategy 3.3.2:* Acquisition Offer. The Acquisition Office will make an offer within 6 months of receiving the appraisal request and delineation sheet from the District staff.

**Objective 3.4:** Acquisition Goals. The District will meet current District goal acres within 15 years by acquiring an average of 1,000 acres in fee title, 200 acres of Wetland Easements and 700 acres of Habitat Easements per year, for waterfowl breeding and use. This objective will be modified as appropriate if the goal acres are modified.

*Strategy 3.4.1:* Acquisition Referrals. By year 2005, streamline and promote the process of referring potential fee/easement acquisitions to the District by partner organizations.

*Strategy 3.4.2:* Identify Willing Sellers. Contact landowners of key parcels to establish relationship and inform them of our interest in fee or easement acquisition. RONS Project No. 00014

**Objective 3.5:** Full Funding. Annually, advocate 100 percent of revenue sharing and a lump sum payment for past underpayment through a trust fund to the counties.

**Objective 3.6:** Refuge Revenue Sharing. By 2005, conduct a study that would provide the following information to managers so that they can better communicate the issue to the public:

- 1) A graph of revenue sharing for the last 20 years.
- 2) A detailed explanation of the impact of federal ownership on school taxes.
- 3) A detailed description of the trust fund payments to the counties in relation to the revenue sharing shortfall.
- 4) How much money is needed to make up the Refuge Revenue Sharing payment shortfall prior to 1993?

*Strategy 3.6.1:* Improve Communications. Prepare a brochure and news release materials by 2005, that provides comprehensive information concerning the Refuge Revenue Sharing Program, the historic shortfall, the discrepancy between local taxes and the social impact of the WPA program (economic, recreational, environmental) to local communities. The brochure would utilize information obtained from Objectives 3.5 and 3.6. RONS Project Nos. 00031 and 00031

**Objective 3.7:** Economic Impact. By 2006, cooperate with research designed to determine local economic value of Federal land ownership.

**Objective 3.8:** Hydrological Benefits. By 2010, demonstrate the hydrological benefits of restored wetlands; determine cash value of wetland values.

**Objective 3.9:** Aesthetic Value. Determine importance of wildlife to people in the Windom community by 2008.

#### Goal 4: Monitoring

Collect baseline information on plants, fish and wildlife and monitor critical parameters and trends of key species and/or species groups on and around District units. Promote the use of coordinated, standardized, cost effective, and defensible methods for gathering and analyzing habitat and population data. Management decisions will be based on the resulting data.

**Objective 4.1:** Inventory and Monitoring Workshop: Conduct an inventory and monitoring workshop by 2006 with recognized researchers in the field to identify monitoring needs, approaches, strategies and target species.

**Objective 4.2:** Inventory and Monitoring Plan. Develop an inventory and monitoring plan by 2006 that will identify census needs and

appropriate techniques as part of a coordinated monitoring program that will be used to evaluate species richness within the Districts by developing species data and accounts on selected sites.

*Strategy 4.2.1:* Staff. Hire a wildlife biologist to develop an inventory and monitoring plan. Initiate and complete an inventory and monitoring program as outlined in the plan. Hire two Biological Technicians to collect and summarize inventory and monitoring data. RONS Project Nos. 99006, 00010, 00011

**Objective 4.3:** Geographic Information System. Increase use of GIS technology in monitoring habitat and wildlife (See operations section for details)

**Objective 4.4:** Good Science. By 2006, increase the use of biological data in the overall management of the Districts by fulfilling the actions identified in the inventory and monitoring plan.

*Strategy 4.4.1:* Coordination. Have annual meetings for biologists and field personnel to share information, techniques and results of management strategies on target populations.

*Strategy 4.4.2:* Data Summaries. The biologist should summarize data concerning the impact of management strategies on target species and present to management so decisions can be based on monitoring information.

**Objective 4.5:** Biological Inventory. As part of the inventory and monitoring plan, inventory the biological resources on the Districts by the year 2010.

*Strategy 4.5.1:* Staff. Same as Strategy 4.2.1.

*Strategy 4.5.2:* Expand Inventory. In cooperation with the Minnesota DNR, expand biological inventory process beyond the boundaries of Federal lands.

**Objective 4.6:** Breeding Birds. By 2008, conduct regular surveys of breeding grassland and wetland migratory birds. Include information on reproductive success as well as abundance following techniques identified in the inventory and monitoring plan.



Photo Copyright by Jan Eldridge

**Objectives 4.7:** Monitoring. By 2015, monitor the levels of external threats to the Waterfowl Production Units such as soil erosion, incoming water

quality, pesticide use, and contaminants as identified in the Inventory and Monitoring Plan.

*Strategy 4.7.1:* Identify External Threats. Complete a comprehensive assessment of all WPAs to identify external threats to WPA biological diversity and health. RONS Project No. 00026

#### Goal 5: Endangered Species / Unique Communities

Preserve enhance, and restore rare native northern tallgrass prairie, flora and fauna that are or may become endangered. Where feasible in both ecological and social/economic terms, reintroduce native species on WPAs in cooperation with the Minnesota DNR.

**Objective 5.1:** Threatened and Endangered Species. By 2010, identify and survey threatened and endangered species within the District looking specifically for species of special interest to the Service.

**Objective 5.2:** Invertebrates. By 2015, conduct regular surveys of invertebrate communities in grassland and wetland communities following the approaches identified in the Inventory and Monitoring Plan.

**Objective 5.3:** Research. By 2008, cooperate in one research project that will further our understanding about management and habitat manipulations on the District.

**Objective 5.4:** Partners for Fish and Wildlife. With the Partners for Fish and Wildlife staff in the Regional Office, develop clear guidance for upland and riparian restoration work so each District is managing the program consistently.

*Strategy 5.4.1:* Private Lands. Identify limiting factors to the Partners for Fish and Wildlife Program and develop strategies to increase its size and improve its effectiveness.

*Strategy 5.4.2:* Staff and Funding. Hire a Wildlife Biologist to coordinate and increase the District's ability to respond to natural resource technical assistance requests from private landowners. RONS Project No. 00026

**Objective 5.5:** Inventory and Monitoring. The District will identify the location of endangered and threatened species within the District boundaries through the Inventory and Monitoring Plan. The Districts will obtain baseline data including maps of all federally-listed endangered and threatened species by the year 2010.

*Strategy 5.5.1:* Staff. Same as 4.2.1.

*Strategy 5.5.2:* Cooperate with colleges or universities to conduct an inventory, and develop a list of endangered and threatened species found in the

District. Enter location and description information into the District GIS. RONS Project No. 00010

- Objective 5.6:** Management. By 2015, protect, and enhance populations of endangered, threatened, or special emphasis species indigenous on District lands. Management applications applied to these areas will be tailored to meet species management needs.
- Strategy 5.6.1:* Priority Species. Ensure WPA management practices are consistent with sound biological practices for populations of endangered, threatened and special emphasis species found on these areas. RONS Project No. 00010
- Objective 5.7:** Cooperation. The Districts will work with partners and other agencies to develop specific plans for target species occurring within the Districts.
- Strategy 5.7.1:* Species Inventory. By 2008, identify and locate target species which require special management consideration.
- Objective 5.8:** Enforcement. The Districts will enforce all Endangered Species and Migratory Bird Treaty Act regulations within the District through increased contacts with hunters, neighbors and visitors.
- Strategy 5.8.1:* Outreach. Provide information concerning Endangered Species and Migratory Bird Treaty act regulations each year to High Schools and Sportsmen's clubs within the District.
- Strategy 5.8.2:* Protection Monitoring. Locations of endangered plant species, and areas used by or critical to endangered plant or animal species will be entered into the GIS data base. Maps of these locations will be provided to all District Staff so frequent monitoring can occur.
- Objective 5.9:** Monitoring. The Districts will obtain baseline data including maps of all federally endangered and threatened species as well as all native prairie tracts, calcareous fens and oak savannah by 2004.
- Strategy 5.9.1:* Staff. Same as 4.2.1.
- Strategy 5.9.2:* Coordination. Contact Minnesota DNR and Nature Conservancy to obtain GIS layers of the above by 2003.
- Objective 5.10:** Cooperation. By 2007, the Districts will identify threatened Northern Tallgrass Prairie unique communities and work through the Tall Grass Prairie Habitat Preservation Area project partners or other agencies and partners to acquire in fee title or protect through easement where the Small Wetlands Acquisition Program is not appropriate.

*Strategy 5.10.1:* Protection Planning. All remaining native prairie remnants within the District will be identified by the District Wildlife Biologist by 2005 and strategies for their protection will be developed by 2006. RONS Project No. 00010

*Strategy 5.10.2:* Staff. Use Acquisition Program to accomplish resource protection through the efforts of an Ascertainment Biologist. RONS Project No. 00014

**Objective 5.11:** Reintroduction Plan. Identify, evaluate, and prioritize opportunities to reintroduce native species documenting the needs in a plan by 2005.

*Strategy 5.11.1:* Staff. Hire a Wildlife Biologist by 2003 to coordinate reintroduction efforts with the Minnesota Department of Natural Resources and other partners. RONS Project No. 00027

**Objective 5.12:** By 2007 begin a reintroduction program to reintroduce one species per year until all goal species identified under Objective 5.11 are reintroduced.

**Objective 5.13:** Establish Priorities. Develop priority actions to be implemented by the Partners for Fish and Wildlife Program with the strategies to be developed in a joint effort by all districts by 2005.

*Strategy 5.13.1:* Serve the Public. Reduce response time to requests for assistance in restoring wetland and upland habitats. Promote enrollment of restorations into perpetual easements. RONS Project No. 00026



#### Goal 6: Public Use / Environmental Education

Provide opportunities for the public to use the WPAs in a way that promotes understanding and appreciation of the Prairie Pothole Region. Promote greater understanding and awareness of the Wetland Management District's programs, goals, and objectives. Advance stewardship and understanding of the Prairie Pothole Region through environmental education, outreach and partnership development.

**Objective 6.1:** Improved Standards. Each Wetland Management District will strive to meet the National Visitor Service Standards for the Refuge System by the year 2005.

*Strategy 6.1.1:* Visitor Services Plan. By 2003, develop a comprehensive, District Visitor Services Plan which addresses: outreach; volunteer program partnerships; environmental education; handicap accessibility and wildlife-dependent recreational needs/opportunities. RONS Project Nos. 98006 and 00033

*Strategy 6.1.2:* Visitor Contact Station. Develop Visitor Contact Station at District Headquarters on the Wolf Lake WPA. Purpose is to welcome, inform and orient visitors, and provide facilities to conduct a K-12 grade Environmental Education Program. Ensure adequate funding for staff, exhibits, supplies and equipment to meet National Visitor Center Standards. RONS Project Nos. 99015, 00035 and 00036

*Strategy 6.1.3:* Parking Areas. Address shortage of parking areas on WPAs to enable the public to safely utilize all WPAs and reduce potential collision hazards. RONS Project No. 00034

**Objective 6.2:** Staff. Each Wetland Management District should have a full time public use specialist by the year 2003.

*Strategy 6.2.1:* Outdoor Recreation Planner. Hire an Outdoor Recreation Planner by 2004 to develop the Comprehensive District Visitor Services Plan and begin implementation by 2004. RONS Project No. 00032

**Objective 6.3:** Accessibility. Each Wetland Management District should designate a Waterfowl Production Area in each county that will be handicapped accessible by 2006.

*Strategy 6.3.1:* Interpretive Facilities. In each county, construct accessible interpretive walking trails, board walks, wildlife observation towers, hunting and photo blinds as well as update public use leaflets. RONS Project No. 00038

**Objective 6.4:** WPA Maps. Develop maps for each Wetland Management District that can be easily provided upon request to the public by the year 2004.

*Strategy 6.4.1:* Maps for the Public. Utilize GIS technology to provide accurate, up-to-date WPA maps for public use. Develop "hard copy" and internet accessible county and individual WPA maps. RONS Project No. 00039

**Objective 6.5:** Outreach Plan. Develop an outreach plan for each District, following the Public Use Plan developed by Fergus Falls Wetland Management District. Address internal (within the Service) and external audiences by the year 2005.

*Strategy 6.5.1:* See 6.1.1 and 6.1.2.

**Objective 6.6:** Promote greater understanding of the District program; implement the Public Use Plan for each District by the year 2005.



**Objective 6.7:** Environmental Education. Provide 2,000 environmental education visits per year on the District by 2005.

*Strategy 6.7.1:* EE Program. Provide a K-12 grade Environmental Education Program which primarily utilizes the Wolf Lake and Worthington WPAs as outdoor classrooms. RONS Project No. 00037

## **Operations**

### Goal 7: Development Plan

Complete Geographic Information System (GIS) based WPA Development Plans for each unit in each District. Provide Districts with GIS to assist with acquisition, restoration, management and protection of public and private lands.

**Objective 7.1:** Complete Development Planning for all existing WPAs by 2008.

**Objective 7.2:** By 2006, ensure that newly acquired land receives timely, effective unit planning to meet trust responsibilities within two years of taking possession of area.

**Objective 7.3:** Each District will have its own computer support staff by 2004.

*Strategy 7.3.1:* Computer Specialist. Hire computer support specialist by 2004 to assist in maintaining and upgrading office computers and networks. Also coordinate development and utilization of GIS/GPS technology. RONS Project No. 00048

**Objective 7.4:** Software Development. Develop and initiate use of a GIS customized for Wetland District management in all appropriate Minnesota field stations.

*Strategy 7.4.1:* Continued GIS Development. Identify, develop and incorporate additional capabilities and new technology to meet expanding field station needs. RONS Project No. 00047

**Objective 7.5:** Data Entry. Complete entry of WPA and Easement ownership boundaries, habitat, facility and management accomplishment layers for all Districts by 2003.

**Objective 7.6:** Staff Proficiency. Develop GIS proficiency at each District by 2003. Includes a Computer Administrator with advanced GIS skills and a field staff with a basic level of GIS competency.

*Strategy 7.6.1:* Computer/GIS Administrator. Hire Computer/GIS Administrator to maintain all computer systems and has lead role in the use of GIS technology. RONS Project No. 00048

*Strategy 7.6.2:* Data Entry Technicians. Hire or extend the terms of technicians, for the initial and annual GIS data entry process. RONS Project No. 00049

*Strategy 7.6.3:* GIS Training. Provide initial and annual training for all management and field staff to utilize GIS technology for planning, documenting and evaluating district field activities. RONS Project No. 00049

#### Goal 8: Support Staff, Facilities and Equipment

Provide necessary levels of maintenance, technician and administrative support staff to achieve other Wetland Management District goals. Provide all Districts with adequate and safe office, maintenance and equipment storage facilities. Acquire adequate equipment and vehicles to achieve other District goals. Maintain District equipment and vehicles at or above Service standards.

**Objective 8.1:** Fill essential staff positions by 2004, other identified staff positions by 2015.

*Strategy 8.1.1:* Immediate Staff Needs. The immediate staff needs are discussed in Chapter 5 of this Plan. RONS Project Nos. 00037, 00040 and 00041

**Objective 8.2:** Identify all buildings that do not meet service standards or needs by 2003.

**Objective 8.3:** Replace or modify all buildings that do not meet service standards or needs by 2010.

*Strategy 8.3.1:* Maintenance Facility. Replace existing maintenance facility by 2004, and construct on the Wolf Lake WPA. Facility should include: heated workshop, vehicle parking and cold storage for equipment and grass/forb seed. RONS Project No. 99005

**Objective 8.4:** Replace Vehicles. Replace all Wetland District vehicles when their mileage reaches normal industry replacement standards (6 years or 60,000).

*Strategy 8.4.1:* Replacement Requests. Ensure that MMS documents are updated annually to reflect current vehicle needs. MMS Project Nos. 00017, 00118, 92233, 97152

*Strategy 8.4.2:* Habitat Management Equipment. Replace backlog of worn-out equipment that has exceeded life expectancy. This equipment is necessary for wetland restoration and upland cover establishment and maintenance. MMS Project Nos. 99432, 00115, 92233, 92234, 92235

**Objective 8.5:** Other Field Equipment. Acquire and update specialized, non-vehicle equipment such as: trailers, mowers, misc. tools, GPS, laptop computers by 2008.

*Strategy 8.5.1:* Wetland Restoration/Enforcement. Acquire survey grade GPS unit to facilitate survey, design and inspection of wetland restorations and protection/enforcement of FWS Easements. RONS Project No. 00043

*Strategy 8.5.2:* Laptop Computers. Acquire and upgrade laptop computers to enable wetland restoration data collection, processing, and design to be completed in the field to improve communications with private landowners. RONS Project No. 00048

#### Goal 9: Capital Development Funds

Ensure that annual capital development funds are large enough to meet necessary development of new WPA land: Have adequate funds available each year to permit completion of maintenance needs for each Wetland Districts current land base of Waterfowl Production Areas.

**Objective 9.1:** Development Funds. As requested, educate and provide adequate information to Regional, Washington, departmental and congressional staffs of need for capital improvement funding of an ongoing acquisition program.

*Strategy 9.1.1:* Development Cost Estimates. Identify costs of adding new lands to O&M budgets.

*Strategy 9.1.2:* Development Funding. Obtain annual funding for habitat restoration on newly acquired lands including building site demolition, fence removal, well sealing and general cleanup. RONS Project Nos. 99002 and 00044

*Strategy 9.1.3:* Archeological Surveys. Obtain funding to conduct four cultural resource investigations each year on newly acquired lands to document any sites in need of study or preservation and to permit other habitat development projects to proceed. RONS Project No. 00045

*Strategy 9.1.4:* Parking Areas. See Strategy 6.1.3.

**Objective 9.2:** Maintenance Needs. By 2004, develop a current inventory of all maintenance needs, updating it annually.

**Objective 9.3:** Accomplishments Summary. The Refuge Supervisor will summarize accomplishments combining all districts to demonstrate the work done through previous funding.

*Strategy 9.3.1:* Utilize District GIS. Develop user-friendly process by 2004 for Refuge Supervisor to summarize WPA development accomplishments entered into District GIS

**Objective 9.4:** FWS Standards. Bring all station facilities and structures up to FWS Standards by 2010.

*Strategy 9.4.1:* Boundary Maintenance. Bring all backlogged boundary signing and fencing maintenance needs to Service Standards by 2015. RONS Project No. 00046

*Strategy 9.4.2:* Trails Maintenance. Bring all backlogged repair of station access trails up to service standards.

#### Goal 10: Consistency

Develop and apply consistent policies for habitat, public use, and resource protection and ensure frequent coordination among Districts, both in Minnesota and in neighboring states with WPAs (North and South Dakota, Iowa, and Wisconsin).

**Objective 10.1:** Quarterly coordination meetings for the Districts will be held to discuss common issues and practices. The meetings will include all District managers and District supervisors.

**Objective 10.2:** Once a year a regional meeting will be held to compare notes with managers in Region 6 and other Wetland Management Districts in Region 3 that are not included in this Comprehensive Conservation Plan.